

CLAIMS

We Claim:

1. A method of testing an electronic device, said method comprising:
5 a) transferring a test pattern between a first data controller coupled to a first data interface and a second data controller coupled to a second data interface via an element coupling said first and second data interfaces;
b) receiving said test pattern; and
10 c) examining said test pattern.
2. The method of Claim 1, wherein said a) further comprises:
transferring said test pattern between said first data controller
and a third data controller coupled to a third data interface via an
15 element coupled between said first data interface and said third data interface.
3. The method of Claim 1, wherein said test pattern tests electrical
connectivity over between said first data controller and said second data
20 controller.
4. The method of Claim 1, wherein said a) comprises transferring
said test pattern over data interfaces having the same form factor.

5. The method of Claim 1, wherein said a) comprises transferring said test pattern over data interfaces having different form factors from one another.
- 5 6. The method of Claim 5, wherein said a) comprises transferring said test pattern over data interfaces comprising at least two of: a PCI (Peripheral Component Interconnect) interface, a memory interface, and a disk controller interface.
- 10 7. The method of Claim 1, wherein said first and second data controllers are both tested using a single scan chain.
8. The method of Claim 1, wherein said a) comprises:
a1) establishing a drive mode for said first data controller; and
15 a2) establishing a receive mode for said second data controller.
9. An apparatus for testing an electronic device, said apparatus comprising:
a first element that is operable to be inserted into a first data
20 interface coupled to a first data path of the electronic device;
a second element that is operable to be inserted into a second data interface coupled to a second data path of the electronic device, wherein said first and second data interfaces are not typically connected during operation of the electronic device; and

a third element coupled between said first element and said second element to allow an electrical coupling of the first data interface to the second data interface, wherein said electrical coupling allows the formation of a test data path including the first and second data paths.

5

10. The apparatus of Claim 9, further comprising:

a fourth element that is operable to be inserted into a third data interface coupled to a third data path of the electronic device; and

wherein said third element is further coupled between said first
10 element and said fourth element to allow an electrical coupling of the first data interface to the third data interface, wherein said electrical coupling of the first data interface to the third data interface allows the formation of a test data path including the first and third data paths.

15 11. The apparatus of Claim 9, wherein:

said first element and said second element are adapted to be inserted to data interfaces having the same form factor.

12. The apparatus of Claim 9, wherein:

20 said first element and said second element are adapted to be inserted to data interfaces having different form factors.

13. The apparatus of Claim 9, wherein:

said first element comprises a plug-in jumper card adapted to be
25 inserted into a PCI (Peripheral Component Interconnect) card slot.

14. The apparatus of Claim 13, wherein:
said second element comprises a plug-in jumper card adapted to
be inserted into a PCI (Peripheral Component Interconnect) card slot.
- 5
15. The apparatus of Claim 13, wherein:
said second element is adapted to be inserted into a memory slot.
16. The apparatus of Claim 13, wherein:
10 said second element is adapted to be inserted into a disk drive slot.
17. The apparatus of Claim 9, wherein said electrical coupling
further allows an electrical connectivity test.
- 15 18. The apparatus of Claim 9, wherein said electrical coupling
further allows multiple data controllers to be tested using a single scan
chain.
19. A computer readable medium having stored therein instructions
20 that when executed on a processor implement a method of testing an
electronic device, said method comprising:
issuing a command to a first data controller to transfer a test
pattern from said first data controller to a first data interface coupled
thereto; and

issuing a command to a second data controller to receive said test pattern from a second data interface that is electrically coupled between said first data interface and said second data controller; and receiving said test pattern.

5

20. The computer readable medium of Claim 19, wherein said method further comprises:

issuing a command to a third data controller to receive said test pattern from a third data interface that is electrically coupled between
10 said third data controller and said first data interface.

21. The computer readable medium of Claim 19, wherein said method further comprises determining that a data path exists from said first data controller to said second data controller through a path
15 including said first and second data interfaces.

22. The computer readable medium of Claim 19, wherein said method further comprises testing a plurality of data controllers using a single scan chain.

20

23. The computer readable medium of Claim 19, wherein said method further comprises performing an electrical connectivity test of a data path comprising said first data interface and said second data interface.